Answer 1:

Bibliographic Information

Triple immunosuppression protects murine intracerebral, hippocampal xenografts in adult rat hosts: effects on cellular infiltration, major histocompatibility complex antien induction and blood-brain barrier leakage. Pedersen, E. B.; Zimmer, J.; Finsen, B. Department Anatomy Cell Biology, University Odense, Odense, Den. Neuroscience (Oxford) (1997), 78(3), 685-701. Publisher: Elsevier, CODEN: NRSCDN ISSN: 0306-4522. Journal written in English. CAN 127:13175 AN 1997:303473 CAPLUS (Copyright (C) 2008 ACS on SciFinder (R))

Abstract

Recently we reported protection of intracerebral mouse to rat hippocampal xenografts upon treatment with a combination of cyclosporin A, prednisolone and azathioprine. These findings are now supported in an extended anal. of graft-infiltrating cells. Host T-cell and macrophage infiltration and the immunocytochem. level of cellular expression of major histocompatibility complex class I and II antigens, measured by densitometric anal., were compared between recipient rats receiving cyclosporin A alone or cyclosporin A in combination with prednisolone and azathioprine. The combination therapy resulted in a much improved survival of the xenografted hippocampal tissue with preservation of organotypic granule and pyramidal cell layers. Graft infiltration by T-cells and macrophages was significantly lower and the level of major histocompatibility complex class I and II antigen expression by the infiltrating cells markedly reduced. Lower expression of donor-type major histocompatibility complex class I antigen was also found in the xenografts in the trimedicated recipients, together with reduced blood-brain barrier leakage and astrogliosis at the host-graft interface. The results demonstrate the benefits of using combined immunosuppressive strategies for protection of histoincompatible brain xenografts in the central nervous system.

Answer 2:

Bibliographic Information

Prevention of mouse-rat brain xenograft rejection by a combination therapy of cyclosporin A, prednisolone and azathioprine. Pedersen, Erik B.; Poulsen, Frantz R.; Zimmer, Jens; Finsen, Bente. Department of Anatomy and Cell Biology, University of Odense, Odense, Den. Experimental Brain Research (1995), 106(2), 181-6. Publisher: Springer, CODEN: EXBRAP ISSN: 0014-4819. Journal written in English. CAN 124:105914 AN 1995:999205 CAPLUS (Copyright (C) 2008 ACS on SciFinder (R))

Abstract

Embryonic mouse hippocampal tissue was grafted as tissue blocks to the hippocampal region of adult rats and the effect of two different immunosuppressive treatments compared. Immunosuppression with cyclosporin A, prednisolone and azathioprine or with cyclosporin A alone was compared with placebo treatment. Eight weeks' postgrafting medication with cyclosporin A, prednisolone and azathioprine had resulted in survival of 14 out of 15 grafts (93%), compared with 11 out of 14 (79%) in the group treated with cyclosporin A alone. Only 2 out of 13 grafts (15%) survived in placebo-treated animals. Transplants in the trimedication group displayed distinct cell and neuropil layers and only minimal cellular infiltration by leukocyte common antigen-expressing cells, whereas grafts in cyclosporin A- and placebo-treated groups were densely infiltrated. The results are discussed in relation to the need for extended immunosuppressive and antiinflammatory therapies after intracerebral grafting of histoincompatible tissues.